

## AMENDMENTS

### In the Claims:

1. (Currently Amended) An image processing method for ~~forming~~ printing images on an image ~~forming~~ printing device based on a file stored in an image ~~forming~~ data transmission device using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

said portable terminal establishing a connection with said image ~~forming~~ data transmission device via said second internal network, said second firewall, said external network, said first firewall and said first internal network using a protocol which allows bi-directional connections between the first and second internal networks and the external network at said first firewall and said second firewall;

said portable terminal transmitting an image ~~forming~~ printing request for said stored file ~~stored in to~~ said image ~~forming~~ data transmission device ~~to said image forming data transmission device~~;

said image ~~forming~~ data transmission device receiving said image ~~forming~~ printing request ~~transmitted by said portable terminal~~ and preparing a print job ~~an image forming data~~ to print images for associated with said stored file according to said image ~~forming~~ printing request;

said image ~~forming~~ data transmission device establishing a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which allows connections only from the first internal network to the external network at said first firewall;

said image ~~forming~~ data transmission device uploading said prepared print job ~~image forming data~~ to said file server;

said image ~~forming~~ printing device establishing a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which allows connections only from the second internal network to the external network at said second firewall;

said image ~~forming~~ printing device downloading said print job ~~image-forming data~~ from said file server; and

said image ~~forming~~ printing device printing images ~~forming said image~~ based on said downloaded ~~image-forming~~ printing job data.

2. (Currently Amended) An image processing method according to claim 1 further comprising:

said image ~~forming~~ data transmission device transmitting a storage location data indicating where said uploaded ~~image-forming data~~ print job is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said image ~~forming~~ data transmission device transmitted;

said portable terminal displaying said received storage location data; and

said image ~~forming~~ printing device receiving an entry of said storage location data;

wherein said image ~~forming~~ printing device downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data.

3. (Currently Amended) An image processing method according to claim 1 further comprising:

said image ~~forming~~ data transmission device transmitting a storage location data indicating where said uploaded ~~image-forming data~~ print job is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said image ~~forming~~ data transmission device transmitted;

said portable terminal transferring said received storage location data to said image ~~forming~~ printing device via said second internal network or a local communication circuit; and

said image ~~forming~~ printing device receiving said storage location data transferred by said portable terminal;

wherein said image ~~forming~~ printing device downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data.

4. (Currently Amended) An image processing method according to claim 1 further comprising:

said file server transmitting a storage location data indicating where said ~~image-forming data~~ print job uploaded by said image ~~forming~~ data transmission device is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said file server transmitted;

said portable terminal displaying said received storage location data; and

said image ~~forming~~ printing device receiving an entry of said storage location data;

wherein said image ~~forming~~ printing device downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data.

5. (Currently Amended) An image processing method according to claim 1 further comprising between:

said file server transmitting a storage location data indicating where said ~~image-forming-data~~ print job uploaded by said image ~~forming~~ data transmission device is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said file server transmitted;

said portable terminal transferring said received storage location data to said image ~~forming~~ printing device via said second internal network or a local communication circuit;

said image ~~forming~~ printing device receiving said storage location data transferred by said portable terminal;

wherein said image ~~forming~~ printing device downloads said ~~image-forming-data~~ print job from the storage location on said file server based on said storage location data.

6. (Currently Amended) An image processing method according to claim 1 wherein said image ~~forming~~ printing device is a printer and said ~~image-forming-data~~ is a printing job.

7. (Currently Amended) An image processing method for forming an image on an image ~~forming~~ printing device based on a file stored in an image ~~forming~~ data transmission device using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

said portable terminal establishing a connection with said image ~~forming~~ data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network;

said portable terminal transmitting an image ~~forming~~ printing request for said file stored in said image ~~forming~~ data transmission device to said image ~~forming~~ data transmission device;

said image ~~forming~~ data transmission device receiving said image ~~forming~~ printing request transmitted by said portable terminal and preparing an ~~image-forming-data~~ print job for said file according to said image ~~forming~~ printing request;

said image ~~forming~~ data transmission device establishing a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which allows connections only from the first internal network to the external network at said first firewall;

said image ~~forming~~ data transmission device uploads said prepared ~~image-forming-data~~ print job to said file server;

said image ~~forming~~ printing device establishing a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which allows connections only from the second network to the external network at said second firewall;

said image ~~forming~~ printing device downloading said ~~image-forming-data~~ print job from said file server; and

said image ~~forming~~ printing device forming said image based on said downloaded ~~image-forming-data~~ print job.

8. (Currently Amended) An image processing method according to claim 7 further comprising:

said image ~~forming~~ data transmission device transmitting a storage location data indicating where said uploaded ~~image-forming-data~~ print job is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said image ~~forming~~ data transmission device transmitted;

said portable terminal displaying said received storage location data; and

said image ~~forming~~ printing device receiving an entry of said storage location data;

wherein said image ~~forming~~ printing device downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data.

9. (Currently Amended) An image processing method according to claim 7 further comprising:

said image ~~forming~~ data transmission device transmitting a storage location data indicating where said uploaded ~~image-forming data~~ print job is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said image ~~forming~~ data transmission device transmitted;

said portable terminal transferring said received storage location data to said image ~~forming~~ printing device via said second internal network or a local communication circuit; and

said image ~~forming~~ printing device receiving said storage location data transferred by said portable terminal;

wherein said image ~~forming~~ printing device downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data.

10. (Currently Amended) An image processing method according to claim 7 further comprising:

said file server transmitting a storage location data indicating where said ~~image-forming data~~ print job uploaded by said image ~~forming~~ data transmission device is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said file server transmitted;

said portable terminal displaying said storage location data; and

said image ~~forming~~ printing device receiving an entry of said storage location data;

wherein said image ~~forming~~ printing device downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data.

11. (Currently Amended) An image processing method according to claim 7 further comprising:

said file server transmitting a storage location data indicating where said ~~image-forming data~~ print job uploaded by said image ~~forming~~ data transmission device is stored on said file server to said portable terminal;

said portable terminal receiving said storage location data which said file server transmitted;

said portable terminal transferring said received storage location data to said image ~~forming~~ printing device via said second internal network or a local communication circuit;

said image ~~forming~~ printing device receiving said storage location data transferred by said portable terminal;

wherein said image ~~forming~~ printing device downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data.

12. (Currently Amended) An image processing method according to claim 7 wherein said image ~~forming~~ printing device is a printer and said ~~image-forming data~~ is a printing job.

13. (Currently Amended) An image processing system for forming an image on an image ~~forming~~ printing device based on a file stored in an image ~~forming~~ data transmission device, using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, wherein:

said portable terminal comprises,

a first connection establisher to establish a connection with said image ~~forming~~ data transmission device via said second internal network, said second firewall, said external network, said first firewall and said first internal network using a protocol, which allows bi-directional connections between the first internal network and the external network at said first firewall and said second firewall, and

an image ~~forming~~ printing request transmitter to transmit an image ~~forming~~ printing request for said file stored in said image ~~forming~~ data transmission device to said image ~~forming~~ data transmission device;

said image ~~forming~~ data transmission device comprises,

an image ~~forming~~ printing request receiver to receive said image ~~forming~~ printing request from said portable terminal,

an ~~image-forming-data print job~~ preparer to prepare an ~~image-forming-data print job~~ for said file based on said image ~~forming~~ printing request received by said image ~~forming~~ printing request receiver,

a second connection establisher to establish a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which allows connections only from the first internal network to the external network at said first firewall, and

~~a an image-forming-data print job~~ uploader to upload said ~~image-forming-data print job~~ prepared by said ~~image-forming-data print job~~ preparer to said file server; and

said image ~~forming~~ printing device comprises,

a third connection establisher to establish a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which allows connections only from the second internal network to the external network at said second firewall,



~~a an image forming data print job~~ downloader to download said ~~image forming data print job~~ from said file server, and

an image former to form said image based on said ~~image forming data print job~~ downloaded by said ~~image forming data print job~~ downloader.

14. (Currently Amended) An image processing system according to claim 13 wherein said ~~image forming printing~~ device is a printer and said ~~image forming data~~ is a printing job.

15. (Currently Amended) An image processing system for forming an image on an image ~~forming printing~~ device based on a file stored in an image ~~forming~~ data transmission device, using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming printing~~ device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, wherein

said portable terminal comprises,

a first connection establisher to establish a connection with said image ~~forming~~ data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network, and

an image ~~forming printing~~ request transmitter to transmit an image ~~forming printing~~ request for said file stored in said image ~~forming~~ data transmission device to said image ~~forming~~ data transmission device;

said image ~~forming~~ data transmission device comprises,

an image ~~forming printing~~ request receiver to receive said image ~~forming printing~~ request from said portable terminal,

~~a an image forming data print job~~ preparer to prepare ~~image forming data a print job~~ for said file based on said image ~~forming~~ printing request received by said image ~~forming~~ printing request receiving means,

a second connection establisher to establish a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which allows connections only from the first network to the external network at said first firewall, and

~~a an image forming data print job~~ uploader to upload said ~~image forming data print job~~ prepared by said ~~image forming data print job~~ preparing means to said file server; and

said image ~~forming~~ printing device comprises,

a third connection establisher to establish a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which allows connections only from the second internal network to the external network at said second firewall,

~~a an image forming data print job~~ downloader to download said ~~image forming data print job~~ from said file server, and

an image former to form said image based on said ~~image forming data print job~~ downloaded by said ~~image forming data print job~~ downloader.

16. (Currently Amended) An image processing system according to claim 15 wherein said image ~~forming~~ printing device is a printer and ~~said image forming data is a printing job~~.

17. (Currently Amended) A portable terminal for forming an image on an image ~~forming~~ printing device based on a file stored in an image ~~forming~~ data transmission device, using said portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal

network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a connection establisher to establish a connection with said image ~~forming~~ data transmission device via said second internal network, said second firewall, said external network, said first firewall and said first internal network using a protocol, which allows bi-directional connections between the first network and the external network at said first firewall and said second firewall; and

an image ~~forming~~ printing request transmitter to transmit an image ~~forming~~ printing request for said file stored in said image ~~forming~~ data transmission device to said image ~~forming~~ data transmission device.

18. (Currently Amended) A portable terminal according to claim 17 further comprising:

a storage location data receiver to receive a storage location data indicating where ~~a an image forming data print job~~ for said file uploaded to said file server by said image ~~forming~~ data transmission device is located on said file server; and

a storage location data display to display said storage location data received by said storage location data receiver.

19. (Currently Amended) A portable terminal according to claim 17 further comprising:

a storage location data receiver to receive a storage location data indicating where ~~an image forming data~~ a print job for said file uploaded to said file server by said image ~~forming~~ data transmission device is located on said file server; and

a storage location data transferrer to transfer said storage location data received by said storage location data receiver via said second internal network or local communication circuit to said image ~~forming~~ printing device.

20. (Currently Amended) A portable terminal according to claim 17 wherein said image forming printing device is a printer and ~~said image forming data is a printing job.~~

21. (Currently Amended) A portable terminal for forming an image on an image ~~forming~~ printing device based on a file stored in an image ~~forming~~ data transmission device, using said portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a connection establisher to establish a connection with said image ~~forming~~ data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network; and

an image ~~forming~~ printing request transmitter to transmit an image ~~forming~~ printing request for said file stored in said image ~~forming~~ data transmission device to said image ~~forming~~ data transmission device.

22. (Currently Amended) A portable terminal according to claim 21 further comprising:

a storage location data receiver to receive a storage location data indicating where ~~an image forming data~~ a print job for said file uploaded to said file server by said image ~~forming~~ data transmission device is located on said file server; and

a storage location data display to display said storage location data received by said storage location data receiving means.

23. (Currently Amended) A portable terminal according to claim 17 further comprising:  
a storage location data receiver to receive a storage location data indicating where ~~an image forming data~~ a print job for said file uploaded to said file server by said image ~~forming data~~ transmission device is located on said file server; and  
a storage location data transferrer to transfer said storage location data received by said storage location data receiving means via said second internal network or local communication circuit to said image ~~forming~~ printing device.

24. (Currently Amended) A portable terminal according to claim 17 wherein said image ~~forming~~ printing device is a printer ~~and said image forming data is a printing job~~.

25. (Currently Amended) An image ~~forming~~ data transmission device for forming an image on an image ~~forming~~ printing device based on a file stored in said image ~~forming~~ data transmission device, using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a file storage to store said file;  
an image ~~forming~~ printing request receiver to receive an image ~~forming~~ printing request for said file stored in said file storage means from said portable terminal;  
~~an image forming data~~ a print job preparer to prepare ~~an image forming data~~ a print job for said file based on said image ~~forming~~ printing request received by said image ~~forming~~ printing request receiver;

a connection establisher to establish a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which is allowed to make connections only from the first internal network to the external network at said first firewall; and ~~an image-forming data~~ a print job uploader to upload said ~~image-forming data~~ print job prepared by said ~~image-forming data~~ print job preparing means to said file server.

26. (Currently Amended) An image ~~forming~~ data transmission device according to claim 25 further comprising a storage location data transmitter to transmit a storage location data indicating where said ~~image-forming data~~ print job uploaded to said file server by said ~~image-forming data~~ print job uploader is located on said file server to said portable terminal.

27. (Currently Amended) ~~An image-forming data~~ A print job transmitting device according to claim 25 wherein said image ~~forming~~ printing device is a printer ~~and said image-forming data is a printing job.~~

28. (Currently Amended) An image ~~forming~~ printing device for forming an image based on a file stored in an image ~~forming~~ data transmission device, using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, comprising:

a connection establisher to establish a connection with said file server via said second internal network, said second firewall, and said external network using a protocol, which allows connections only from the second internal network to the external network at said second firewall;

~~an image-forming data~~ a print job downloader to download from said file server ~~an image-forming data~~ a print job for said file uploaded by said image-forming data transmission device to said file server; and

an image-forming printing device to form said image based on said ~~image-forming data~~ print job downloaded by said ~~image-forming data~~ print job downloader.

29. (Currently Amended) An image-forming printing device according to claim 28 further comprising a storage location data receiver to receive a storage location data indicating where said ~~image-forming data~~ print job is located on said file server,

wherein said ~~image-forming data~~ print job downloader downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data received by said storage location data receiver.

30. (Currently Amended) An image-forming printing device according to claim 28 further comprising a storage location data receiver to receive a storage location data indicating where said ~~image-forming data~~ print job is located on said file server from said portable terminal via said second internal network or local communication circuit;

wherein said ~~image-forming data~~ print job downloader downloads said ~~image-forming data~~ print job from the storage location on said file server based on said storage location data received by said storage location data receiver.

31. (Currently Amended) An image-forming printing device according to claim 28 wherein said image-forming printing device is a printer and said ~~image-forming data~~ is a printing job.

32. (Currently Amended) A recording medium that stores a program to control a portable terminal for forming an image on an image ~~forming~~ printing device based on a file stored in an image ~~forming~~ data transmission device, using said portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, characterized in causing said portable terminal to execute:

establishing a connection with said image ~~forming~~ data transmission device via said second internal network, said second firewall, said external network, said first firewall and said first internal network using a protocol, which allows bi-directional connections between the first internal network and the external network at said first firewall and said second firewall, and

transmitting an image ~~forming~~ printing request for said file stored in said image ~~forming~~ data transmission device to said image ~~forming~~ data transmission device.

33. (Canceled).

34. (Currently Amended) A recording medium that stores a program to control a portable terminal for forming an image on an image ~~forming~~ printing device based on a file stored in an image ~~forming~~ data transmission device, using said portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, characterized in causing said portable terminal to execute:



establishing a connection with said image ~~forming~~ data transmission device via a public network, a public network authenticating server connected to said first internal network, and said first internal network, and

transmitting an image ~~forming~~ printing request for said file stored in said image ~~forming~~ data transmission device to said image ~~forming~~ data transmission device.

35. (Canceled).

36. (Currently Amended) A recording medium that stores a program to control an image ~~forming~~ data transmission device for forming an image on an image ~~forming~~ printing device based on a file stored in said image ~~forming~~ data transmission device, using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, characterized in causing said image ~~forming~~ data transmission device to execute:

receiving an image ~~forming~~ printing request for said file from said portable terminal;

preparing ~~an image forming data~~ a print job for said file based on said image ~~forming~~ printing request;

establishing a connection with said file server via said first internal network, said first firewall, and said external network using a protocol, which allows connections only from the first internal network to the external network at said first firewall; and

uploading said ~~image forming data~~ print job to said file server.

37. (Canceled).

38. (Currently Amended) A recording medium that stores a program to control an image ~~forming~~ printing device for forming an image based on a file stored in an image ~~forming~~ data transmission device, using a portable terminal, said image ~~forming~~ data transmission device connected to a first internal network constructed inside a first firewall, said image ~~forming~~ printing device connected to a second internal network constructed inside a second firewall, and a file server connected to an external network constructed on the outside of said first firewall and said second firewall, characterized in causing said image ~~forming~~ printing device to execute:

establishing a connection with said file server via said second internal network, said second firewall and said external network using a protocol, which allows connections only from the second internal network to the external network at said second firewall;

downloading from said file server ~~an image-forming data~~ a print job for said file uploaded by said image ~~forming~~ data transmission device to said file server; and

printing based on said ~~image-forming data~~ print job.

39. (Canceled).